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NIXON PEABODY LLP 300 S. Riverside Plaza 16th Floor CHICAGO, IL 60606			EXAMINER POPHAM, JEFFREY D	
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* TIMOTHY C. LOOSE

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Appeal 2009-007308  
Application 10/748,489  
Technology Center 2400

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Before CARLA M. KRIVAK, THOMAS S. HAHN, and  
ELENI MANTIS MERCADER, *Administrative Patent Judges*.

HAHN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant invokes our review under 35 U.S.C. § 134(a) from the final rejection of claims 1-23. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

## STATEMENT OF THE CASE

### *Introduction*

Appellant claims a gaming machine and method for authenticating data stored in a plurality of memory locations.<sup>1</sup> Illustrative independent claim 1 reads as follows:

1. In a gaming machine, a method of authenticating a media device comprising:

setting an address pointer ADDR to a first next memory location in said media device;

determining whether said first next memory location is a last memory location to be authenticated in said media device;

applying a hashing algorithm to contents of said first next memory location and updating a key-value;

adding a predetermined number N to said ADDR such that a next  $ADDR=ADDR+N$ , wherein N is equal to a positive or negative integer excluding -1, 0 and 1;

setting said next ADDR to a next memory location in the media device to be authenticated such that said next memory location is separated from said first next memory location by at least one memory location;

repeating the determining, applying, adding and setting steps until said next ADDR is equal to said last memory location;

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<sup>1</sup> See generally Spec. 5:3-4, 6:15-17, 27:5 – 29:11; Figs. 1, 2, and 4.

determining whether said key-value is equal to a predetermined key;

in response to said key-value being equal to said predetermined key,  
passing authentication; and

in response to said key-value not being equal to said predetermined  
key, failing authentication.

*Rejections on Appeal<sup>2</sup>*

The Examiner, under 35 U.S.C. § 103(a), rejected:

1. Claims 1-7, 11-14, 16-19, 22, and 23 as unpatentable over Jackson (US 2002/0049909 A1), Pease (US 5,644,704), and Burrows (US 7,149,801 B2) (Final Action 2-12); and
2. Claims 8-10, 15, 20, and 21 as unpatentable over Jackson, Pease, Burrows, and Branstad (US 6,842,860 B1) (Final Action 13-16).

*Appellant's Contentions<sup>3</sup>*

Appellant separately argues the patentability of independent claim 1 (Br. 10-15), and further relies on these arguments to contend patentability for the other independent claims 13 and 17 (Br. 15-16) and also the appealed dependent claims (Br. 7). Accordingly, we select claim 1 as representative

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<sup>2</sup> Effective filing dates for cited prior art precede Appellant's earliest effective filing date and are not at issue.

<sup>3</sup> References are made to the Appeal Brief filed Aug. 5, 2008, and the Examiner's Answer mailed Oct. 31, 2008. No Reply Brief was filed.

for the argued claims pursuant to our authority under 37 C.F.R. § 41.37 (c)(1)(vii).

The arguments asserted for representative claim 1 are that the cited prior art, i.e., Jackson, Pease, and Burrows, are not analogous art (Br. 8-10) and there is no suggestion or motivation supporting their combination (Br. 11-15).

*Issue on Appeal*

Appellant's arguments raise the issue of whether the Examiner erred under 35 U.S.C. § 103(a) in combining and concluding that Jackson, Pease, and Burrows render representative claim 1 obvious?

ANALYSIS

*Obviousness Rejection Based on Jackson, Pease, and Burrows*

Reviewing the Examiner's rejection in light of Appellant's arguments, we disagree with Appellant's conclusions. Instead, we adopt as our own the findings and reasons set forth by the Examiner in the final action from which this appeal is taken and the reasons set forth by the Examiner's Answer in response to Appellant's Brief. Specific findings and arguments for representative claim 1 are highlighted as follows for emphasis.

Appellant characterizes the appealed claims as being "directed toward efficient . . . authentication for gaming machines" (Br. 8), and Appellant acknowledges that Jackson and Pease "are representative of prior art authentication" (*id.*). Appellant, though, argues that an ordinarily skilled

artisan would not combine Burrows with Jackson and Pease because “Burrows does not relate to security and authentication” (*id.*). Burrows, according to Appellant instead is directed to detection of spam e-mail through calculations for checksums (Br. 9-10).

The Examiner first focuses the dispute by reviewing the findings and reasoning relied on for rejecting claim 1 (Ans. 18-19). Synopsizing, the Examiner finds Jackson and Pease teach the claim 1 limitations except for “N is equal to a positive or negative integer excluding -1, 0 and 1,” which the Examiner finds taught in Burrows (Ans. 19). Specifically, the Examiner finds:

Burrows teaches computing checksums by skipping certain values in column 8, lines 54-60, for example, teaching that every 64<sup>th</sup> value is hashed in order to make computation of the checksum fast. Column 12, lines 35-41 teaches that, “To make the computation of the checksum fast, only a subset of the values on the path need be checksummed--for example, every 16<sup>th</sup> value.” As one can see, Burrows teaches only using every N<sup>th</sup> value in generation of the checksum in order to speed up calculations.

(*Id.*). Reviewing Burrows, we agree with the Examiner’s findings.

Though acknowledging that Jackson and Pease teach prior art authentication, Appellant contends that these two references fail to suggest shortening authentication processing (Br. 11-12). More particularly, Appellant argues that “[t]he Final Office Action has not provided any rationale for combining Burrows with authentication references such as

Jackson and Pease given their different features” (Br. 12). The Examiner responds that

the motivation for incorporating the checksum techniques of Burrows into the secure gaming system of Jackson as modified by Pease is found within Burrows itself (e.g., Column 12, lines 38-41, stating ‘To make the computation of the checksum fast, only a subset of the values on the path need to be checksummed – for example, every 16<sup>th</sup> value’)

(Ans. 20). The Examiner further finds that “[n]othing in Jackson or Pease states that skipping memory locations during authentication is prohibited”

(Ans. 21). Reviewing the record, we agree with the Examiner. The Examiner concludes that “[o]ne of ordinary skill in the art of authentication will readily notice that increasing the speed at which authentication processing is performed is beneficial” (Ans. 20). Appellant is silent in response to these findings, reasoning, and underpinning rationale. Based on our review of the record, Appellant’s contentions and conclusion that the references, in particular Burrows, fail to suggest shortening authentication processing is found unavailing.

Appellant next argues that “Burrows does not deal with authentication (i.e., a proof of origin) or security issues and therefore is in [a] different field of technology than that of the claims (or Jackson and Pease . . .)” (Br. 14). Here, the Examiner responds that claim 1 recites “authenticating data on a media device,” not authenticating the origin of data, and maybe the

Specification “disclose[s] a mechanism by which to verify the origin of the data, [but] this is not within the claims” (Ans. 23). We agree.

Appellant’s contention that Burrows does not deal with authentication is premised on the argument that the Burrows’ disclosed checksum calculation is “directed to help rapidly search for an item (acceptable solution to a ‘puzzle’) but has no security function whatsoever” (Br. 12). The Examiner responds by finding that “[t]he purpose of checksums is to verify whether or not data has changed and is, therefore, within the realm of authentication” (Ans. 25), and by also identifying that:

Appellant's own specification teaches the use of checksums in the authentication process. Page 14, lines 13-16 of the instant application’s specification recites that “It is understood that there are various other techniques other than a SHA-1 hash function that could be used to verify the authenticity of the various media devices during run time. Such other techniques may include, but are not limited to, CRC-16, CRC-32, MD5 and *checksum* techniques.” By Appellant’s own admission, a checksum can be used for verifying authenticity of media devices and, thus, must be within the field of authentication.

(Ans. 22-23) (italicized emphasis added). Appellant is silent in response to this finding. Based on our review of the record, Appellant’s contention and conclusion that Burrows is unrelated to the authentication field is found unavailing.

For the foregoing reasons, we sustain the Examiner’s rejection of representative claim 1 and also the rejection of independent claims 13 and



17 that fall for the same reasons. Further, we sustain the rejections of claims 2-7, 11, 12, 14, 16, 18, 19, 22, and 23 that are respectively dependent from claims 1, 13, and 17.

*Obviousness Rejection Based on Jackson, Pease, Burrows, and Branstad*

Appellant does not separately argue this rejection of dependent claims 8-10, 15, 20, and 21, but relies on the arguments addressed *supra* for representative claim 1. (Br. 7). Accordingly, we also sustain the rejection of these claims.

CONCLUSIONS

1. The Examiner did not err in combining and concluding under 35 U.S.C. § 103(a) that Jackson, Pease, and Burrows render representative claim 1 obvious.
2. On this record, claims 1-23 are not patentable.

DECISION

The rejections of claims 1-23 are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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